



Klamath Mountains Geomorphic Province



The **Klamath Mountains** consist of several rugged ranges and deep canyons. The mountains reach elevations of 6,000 to 8,000 feet. In the western part of the province, the irregular path of the Klamath River is incised into an uplifted plateau often referred to as the Klamath peneplain. The uplift has left successive benches with gold-bearing gravels on the sides of the canyons. The province is considered to be a northern extension of the Sierra Nevada. Rocks include metamorphosed Paleozoic and Mesozoic oceanic rocks, abundant serpentinite, and granitic intrusions.

Tectonic Setting

The oceanic rocks and serpentinite represent accreted terranes with the latter being interpreted as an ophiolite. Several distinct terranes have been identified. The terranes have been intruded by granitic plutons and veins. Veins, which crosscut adjacent terranes, formed after accretion and help constrain the history. Studies that dated rocks in the province show the terranes are progressively younger from east to west, ranging from Devonian to Late Jurassic Periods (416 to 190 million years ago.)



GeoGem

Castle Crags State Park is the lone GeoGem representing the Klamath Mountains province. Its granitic monolith resembles those in Yosemite National Park. The granitic rock of Castle Crags formed probably one to two miles beneath the surface about 160 to 165 million years ago as a slowly cooling molten body called a pluton. Molten magma that rose along fractures to the surface probably fed volcanoes similar to nearby Mount Shasta. Castle Crags State Park lies near the eastern boundary of the Klamath Mountains geomorphic province near the western edge of the Cascade Range. Stunning views of the snow-capped volcanic giant Mount Shasta dominate the landscape.

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Simplified Geologic Map | Klamath Mountains Geomorphic Province



